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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/808,564

03/14/2001

Venkatesh Vadde

NC17537

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26343

7590

02/16/2005

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EXAMINER

TSE, YOUNG TOI

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,564

Applicant(s)

VADDE, VENKATESH

Examiner

YOUNG T. TSE

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3 is/are rejected.
7) ☒ Claim(s) 4-7 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: in paragraph [0025], line 13, "comprise serial-to-parallel converter unit 34" should be "comprise signal unfolder 60, serial-to-parallel converter unit 34"; in paragraph [0035], line 2, the phrase "the time vector:9" is not understood. Appropriate correction is required.

Claim Objections

2. Claims 1-7 are objected to because of the following informalities:

In claim 1 (line 11) and claim 3 (line 10), the word "shaper" is misspelled.

In claim 1, line 11 (both occurrences), "envelop-shaped signal" should be "envelope-shaped signal".

In claim 2, line 1, "Apparatus" should be "An apparatus".

In claim 3, line 16, "an in-phase carrier" should be "the in-phase carrier" for clarity.

In claim 4:

Line 2, "imaginary part" should be "an imaginary part";

Line 5, "a first signal" should be "said complex signal" as recited in the preamble of the claim, further, claims 4 and 5 do not recite a second signal;

Line 6, "said first signal" should be "said complex signal";

Line 9, "the amplitude and sign of the real part" appears to be "setting the real part" since it does not recite any step to achieve the method of claim 4;

Lines 13-14, 16, 19-20, 20-21, 24-25 and 26, "a plurality of sample symbols" should be "the plurality of sample symbols" for clarity;

Line 20, "of real part" should be "of the real part"; and

Line 27, "one said sample symbols" should be "one of said sample symbols".

In claim 5, line 2, "comparing, setting" should be "comparing, setting the real part, setting".

In claim 6:

Line 2, "imaginary part" should be "an imaginary part";

Line 5, "a first signal" should be "said complex signal" as recited in the preamble of the claim, further, claims 6 and 7 do not recite a second signal;

Line 6, "said first signal" should be "said complex signal";

Line 9, "the amplitude and sign of the real part" appears to be "setting the amplitude of the real part" since it does not recite any step to achieve the method of claim 6;

Lines 20-21, 21-22, 25-26 and 27, "a plurality of sample symbols" should be "the plurality of sample symbols" for clarity;

Line 15, "symbols and" should be "symbols,";

Line 16, "a second set of a plurality" should be "the set of the plurality";

Line 18, "to of less" should be "to or less"; and

Line 28, "part said one said sample symbols" should be "part of said one of said sample symbols".

In claim 7, line 2, "comparing, setting the amplitude" should be "comparing, setting the amplitude of the real part, setting the amplitude of the imaginary part".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The currently amended claims 1-3 contain new matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art.

For example, the claimed subject matter of a transmitter comprising an envelope shaper for performing an envelope-shaped signal, the envelope-shaped signal formed by modulating indications of selected real-valued parts onto an in-phase carrier and by modulating indications of selected imaginary valued parts onto a quadrature-phase in

carrier as recited in the currently amended claims 1 and 3 and the claimed subject matter of a receiver comprising a phase extractor, a magnitude determiner, and a zero padder as recited in the currently amended claim 2 raise new matter because they are not claimed in the original claims, shown in the disclosure of the drawings, or discussed in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, lines 15, 16 and 17, the phrases "said second signal", "the plurality of complex time samples", "said first signal" and "the envelope shaped second signal" all lack antecedent basis.

Allowable Subject Matter

7. Claims 4-7 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mallory discloses a high speed modem utilizes multiple carriers to successively transmit frames containing data such that the frames are transmitted so that the level of the signal is minimized, and is preferably zero, at the borders between individual frames thus, reducing or eliminating interference discontinuities and the accompanying distortion and interframe interference.

Dent discloses a method and apparatus for amplifying communication signals exhibiting reduced adjacent channel energy including generating in-phase (I) and quadrature-phase (Q) modulation signals wherein a sum of the squares of instantaneous I and Q signals is a constant, applying the I and Q signals to a quadrature modulator operating on sine and cosine carrier frequency signals to obtain a constant envelope signal, and amplifying the constant envelope signal using a power amplifier designed to yield high efficiency with constant envelope signals.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

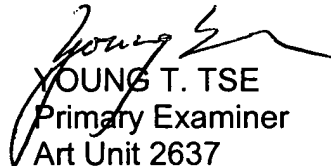
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday and Wednesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


YOUNG T. TSE
Primary Examiner
Art Unit 2637